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**Cray et al.**

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(54) **HIGHLY DIRECTIVE UNDERWATER  
ACOUSTIC RECEIVER**

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(57) **ABSTRACT**

An underwater acoustic receiver sensor is disclosed that measure up to seven (7) quantities of acoustic field at a collocated point. The quantities measured by the acoustic receiver sensor are acoustic pressure, three orthogonal components of acoustic particle acceleration and three spatial gradients of the acceleration vector. These quantities are appropriately combined and provides for improved directivity of the acoustic receiver sensor.

**11 Claims, 1 Drawing Sheet**

